

Policy Overview

Statutory TB testing of bovines in England



Animal &
Plant Health
Agency

August 2023

Statutory tuberculin skin testing policy

- General policy
- Routine surveillance
- Enhanced surveillance
- Pre- and post-movement
- TB incident



Supplementary blood tests – deployment policy

- Interferon-gamma blood test
- IDEXX antibody test
- Private use of non-approved and non-validated tests

Statutory TB skin testing policy

- Single intradermal comparative cervical tuberculin (SICCT) test used
- Active surveillance (including pre- and post-movement testing) and enhanced surveillance / TB incident testing when disease identified
- Statutory TB skin testing policy includes Asiatic water buffalo, farmed bison and other exotic bovines in addition to cattle, as stipulated in the Tuberculosis in Animals (England) Order 2021
- All animals 42 days old and over are included in most types of skin test, with scope to test younger calves if a specific TB risk is identified
- Inconclusive reactors (IRs) are re-tested minimum of 60 days later. If 2xIR or reactor at re-test then, compulsorily slaughtered. Keepers have the option to privately slaughter IRs before their re-test
- Resolved IRs policy was introduced in England in November 2017

Surveillance TB testing

- Active surveillance testing of officially TB free (OTF) bovine herds
- England is split into three bTB risk areas based on prevalence of infection with *M. bovis*
 - High Risk Area (HRA)
 - Edge Area
 - Low Risk Area (LRA)
- Routine herd testing programme using frequencies appropriate to the disease situation

Six Monthly Testing

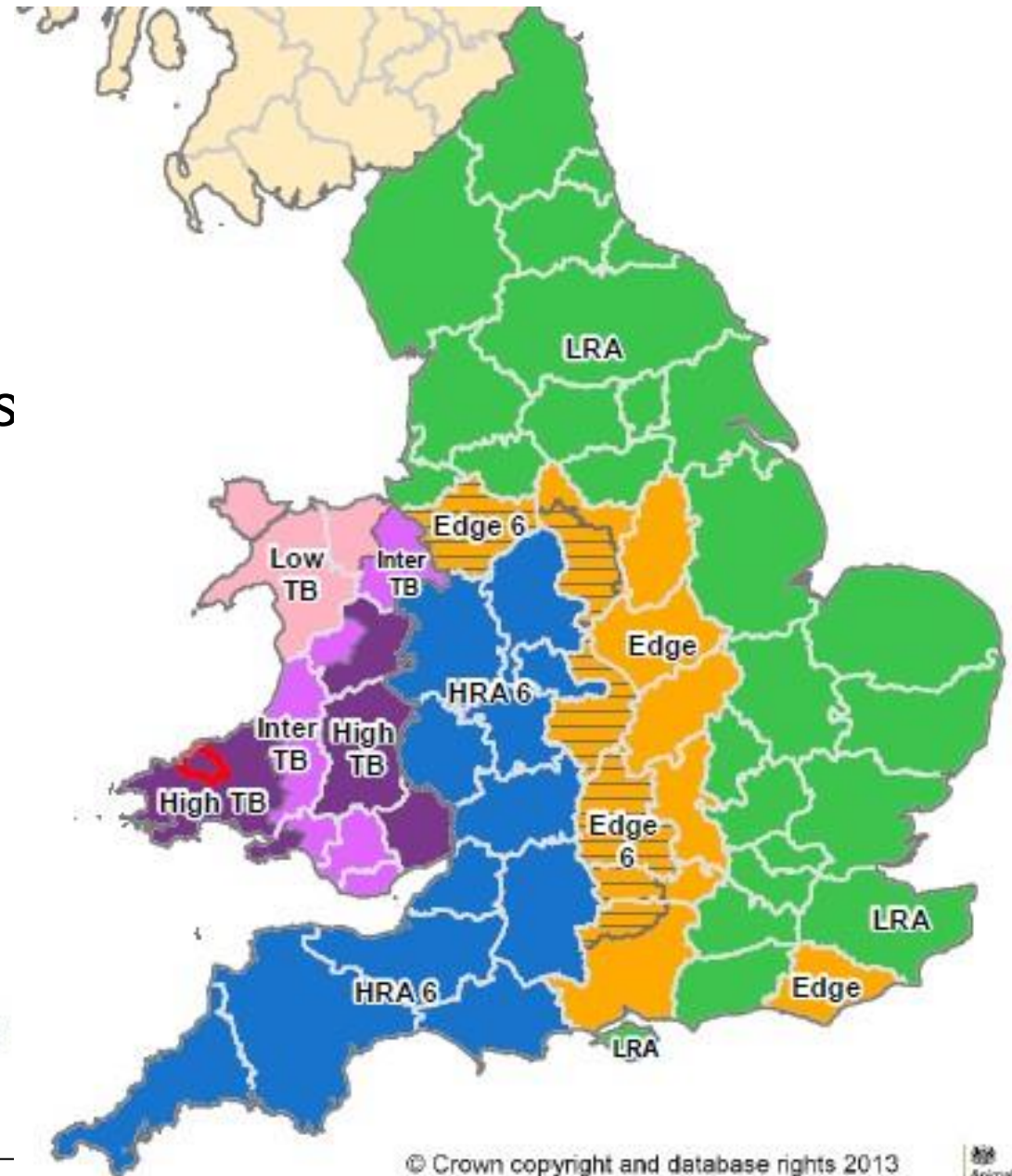
- Edge Area England
- High Risk Area England

Annual Testing

- Edge Area England

4 Yearly Testing

- Low Risk Area England



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Ordnance Survey 100051110

Earned recognition in six-monthly testing areas

Cattle herds in the HRA and parts of the Edge Area that are tested every six-months by default are eligible for annual surveillance testing if they meet either of the following criteria:

- the herd has been in existence for at least six years and has not had a TB breakdown in that six-year period
- the herd is CHECS* TB accredited at level 1 or above (does not include CHECS TB entry level membership)

CHECS = Cattle Health Certification Standards

<https://cheecs.co.uk/>



Enhanced surveillance TB testing

Testing of OTF herds defined as 'higher risk' and for assessing potential source and spread following the detection of a TB incident with lesion and/or culture positive animals.

- 3km radial testing around TB incidents with lesion and/or culture positive animals in annual surveillance testing parts of the Edge Area, and in the LRA
- 1km contiguous testing in herds on annual surveillance testing in six-monthly testing areas, and exceptionally, in the LRA and annual testing parts of the Edge Area
- Source (herd) and spread (individual animals) trace testing
- Confirmed bTB hotspot testing
- Post-incident six- and 12-month testing
- Newly formed herds
- Ad hoc check testing e.g. following a slaughterhouse case

Pre-movement TB testing (PrMT)

- Statutory requirement since 2006 when moving cattle in England and across borders to Wales and Scotland
- Reduces the risk of transmission of *M. bovis* between cattle holdings and to wildlife / other susceptible species on the receiving holding, and supplements routine surveillance testing
- All cattle 42 days old and over moving out of an annually (or more frequently) tested herd in England must have completed a skin test with negative results within the previous 60 days (limited exemptions apply)
- Farmers pay for bespoke PrMT or can use a government-funded test if the timing is right
- Compliance with the policy is monitored by APHA

Guidance on gov.uk:

<https://www.gov.uk/government/publications/pre-movement-and-post-movement-tb-testing-of-cattle-in-great-britain>



Post-movement TB testing (PoMT)

- Statutory requirement when moving cattle from higher TB incidence areas of England and Wales into the LRA and annual surveillance testing parts of the Edge Area
- Reduces impact of undetected infected cattle moved into low incidence areas
- Must be completed within 60-120 days of movement and the animal can't move off the holding during this time, except to slaughter
- Exemptions apply e.g. animals slaughtered within 120 days of arrival
- Farmers pay for bespoke PoMT or can use a government-funded test if the timing is right
- Compliance with the policy is monitored by APHA

Guidance on gov.uk including a full list of exemptions:

<https://www.gov.uk/government/publications/pre-movement-and-post-movement-tb-testing-of-cattle-in-great-britain>

TB incident (breakdown) testing

To regain OTF status, TB breakdown herds must complete:

HRA & Edge Area

- Two consecutive short interval tests (SIT) at severe interpretation with negative results at least 60 days apart for all TB incidents
- Disclosing test re-interpreted at severe

LRA

- As above if lesion and/or culture positive animals found, or if the TB incident meets certain epidemiological criteria
- One negative skin test at standard interpretation if no lesion and/or culture positive animals found

For all TB incidents, reactors at SITs trigger further testing depending on the herd's status and their post-mortem results.

Mandatory IFNy testing policy in England (1)

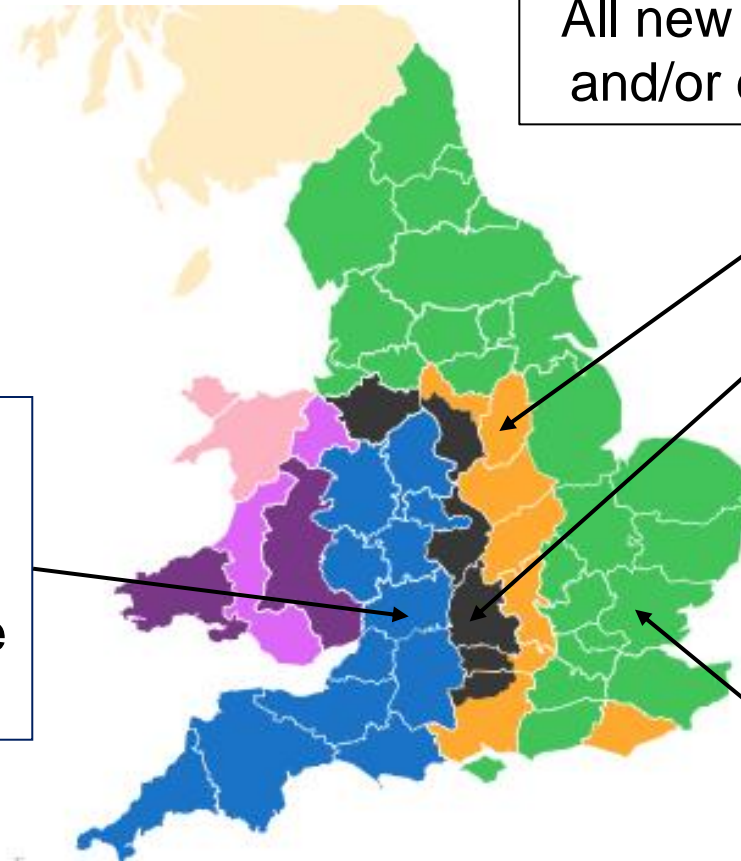
Chronic and persistent breakdowns with lesion and/or culture positive animals in all risk areas

Edge Area (annual testing)
All new breakdowns with lesion and/or culture positive animals

Edge Area (six-monthly testing)
Recurrent breakdowns with lesion and/or culture positive animals

High Risk Area
Recurrent breakdowns with lesion and/or culture positive animals

Low Risk Area
All new breakdowns with lesion and/or culture positive animals



Mandatory IFN γ testing policy (2)

HRA and Edge Area (six-monthly surveillance testing parts)

Since 12th July 2021, all new breakdowns with lesion and/or culture positive animals are assessed against the following criterion for recurrence. If a herd meets the criterion then it requires a mandatory IFN γ test:

The breakdown occurred within 18 months of the herd regaining OTF status following a previous breakdown with lesion and/or culture positive animals

Edge Area (annual surveillance testing parts) and LRA

All new breakdowns with lesion and/or culture positive animals require a mandatory herd IFN γ test.



Mandatory IFN γ testing policy (3) - persistent breakdowns

- Persistent TB breakdown herds are those that have been under movement restrictions for at least 18 months
- These herds are assessed at 17 months under restrictions for a mandatory herd IFN γ test
- Owners of persistent TB breakdown herds receive a letter at 12 and 18 months under restrictions advising of the potential need for a mandatory IFN γ test
- There are also other interventions that keepers are expected to implement alongside supplementary blood testing, such as enhancing on-farm biosecurity
- Further advice and support can be sought from APHA, private vets and the TB Advisory Service

Discretionary IFN γ testing

- Applied in certain situations where the TB breakdown is not automatically eligible for mandatory testing e.g. in breakdowns with high numbers of reactor animals
- Also used by APHA in other ad hoc scenarios, e.g. informing decisions about partial or whole herd slaughter for TB control reasons



IFN γ testing general policy

- Most testing is parallel i.e. remove animal if positive to IFN γ or skin test
- Animals less than six months old are excluded as their developing immune system interferes with the test
- By default, IFN γ testing should be completed ASAP and decoupled from skin testing
- Standard reactors, animals with visible lesions of TB at post-mortem inspection and slaughterhouse cases trigger a further round of IFN γ testing



Flexible-extended IFN γ testing

- Can be used by APHA in chronic/persistent breakdown herds with lesion and/or culture positive animals where Johne's Disease (MAP) infection or vaccination is thought to be interfering with the skin and/or IFN γ tests
- In these herds, the specific response to bovine tuberculin may be masked by a MAP-driven increase in avian tuberculin response, leading to false negative results
- Flexible-extended testing uses *M. bovis*-specific synthetic peptide antigens ESAT6 & CFP10 (not expressed by MAP) in addition to the conventional avian and bovine tuberculin antigens

Private IFN γ testing

- Private vets can submit samples for IFN γ testing at the keeper's cost with prior approval from APHA (England only)
- Limited to specific scenarios outside of the government-funded testing programme e.g. supplement PrMT/PoMT, screening animals joining high value herds, resolved IRs
- Cattle not eligible: test reactors / other cattle awaiting slaughter for TB control purposes, cattle from herds undergoing government-funded IFN γ testing, cattle from herds under restrictions for overdue skin testing
- If a positive result is received, the animal is (with few exceptions) compulsorily slaughtered with compensation paid, the herd will be placed under movement restrictions and normal breakdown procedures followed

More information on the APHA Vet Gateway:

<http://apha.defra.gov.uk/vet-gateway/TB/ifng-testing/index.htm>



IDEXX antibody testing policy

- World Organisation for Animal Health (WOAH) validated test, but not yet EU-approved and not approved by Defra for routine use in cattle in England
- Applied by APHA to chronic/persistent TB breakdown herds as a third-line test on a case-by-case basis
- Whole-herd or specific groups of animals tested
- Seropositives are compulsorily slaughtered with compensation paid when the test is instructed by APHA (government-funded), unlike with private use



Private use of non-approved and non-validated TB tests

- Private use of IDEXX, Enferplex and non-validated tests (e.g. Actiphage) for TB permitted in England under Defra's published protocol
- Chronic/persistent TB breakdown herds which must have already undergone mandatory, discretionary or private IFN γ testing
- Private vet must seek prior authorisation from APHA and the keeper must give their informed written consent
- Results must be reported to APHA by the vet after each testing event
- For private IDEXX/Enferplex tests, seropositive animals must be privately slaughtered (no compensation) before OTF status can be restored, or restricted to the holding for life. Alternatively, a specific testing regime can be completed to lift movement restrictions

More information on the APHA Vet Gateway:

<http://apha.defra.gov.uk/vet-gateway/TB/non-valid-tb-testing/index.htm>